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Solar car teams vie for a shot at World Challenge
Students seek a place in the sun
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The eight members of the Indiana solar car team were scattered prone around their vehicle - a three-wheel car powered by 10 square meters of solar cells - in search of some shade, maybe a little sleep.

"We have been pulling some all-nighters and some all-dayers to get the car ready," said 16-year-old Elliott Prather, a junior at Columbus High School in Columbus, Ind. "It will all be worth it when we drive the car around the track."

Seven teams from across the country - from San Antonio to New York - and one from Mexico will join the Indiana team for the Winston Solar Challenge, a four-day competition at Texas Motor Speedway.

"These kids are spending more than 115 hours outside of school dedicated to getting these vehicles ready," said race coordinator Lehman Marks, head science teacher at The Winston School in Dallas. "Not everyone is cut out for this. But those that are love it."

The race is divided into six heats with the goal being to complete as many laps as possible in a three-hour

period. The winners of each heat will meet Thursday, with the champion earning the $3,000 entry fee for the World Solar Challenge in Australia.

The cars are nothing like the NASCAR or Indy cars often seen at the speedway. The South Carolina team dubbed their vehicle the "Flintstone-mobile" for its canopy of solar panels. One car is long and slim with wings, and another appears to have borrowed its shape from an alien spacecraft.

One team prepared for possible mechanical problems, putting a bumper sticker on their car that reads: "Honk if any parts fall off."

The cars are powered by solar panels that convert the sun's energy to volts. Each cell of a panel can produce 0.5 volts. And each of the 120 students can explain the engineering and physics behind the technology.

"Some kids come into this not knowing how to work a screwdriver," said 16-year-old Max Redd of the Dallas team. "I have learned about battery technology, taken solar physics for four years and learned so much."

Many of the students are learning more working in a garage than they would from reading a science book, said Mary Whittenberg, who last year sponsored a team from Northwest High School.

"This is hands-on and competitive," said Whittenberg, a judge this year. "It is motivating and fun. What else do you need for learning?"

But beyond figuring out how many volts are needed to power a car or how much pressure an axle can handle, the students are learning about life, Marks said.

"You learn that you don't give up," he said. "You learn how to work with people you don't like. You learn how to smile and to stand up and be proud."

In the end, the event is not just about who wins,

Marks said. For example, one team's car broke an axle and skidded out of control during practice, he said.

"It didn't matter who was on whose team, because everyone rushed out there and started helping," Marks said. "By the end of the race, it's not teams - it's just one big group. They know if they even got here they are a winner."

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